

PRICE LIST.

AUGUST, 1874.

OHIO SAW WORKS

(ESTABLISHED 1854.)

Woodrough & McParlin,

MANUFACTURERS OF

PATENT GROUND SAWS,

CIRCULAR, MILL, MULAY, AND CROSS-CUT SAWS,

HAND AND BACK SAWS,

Billet, Cooper, and Power Webs, Etc.

FACTORIES AND WAREHOUSE,

CORNER SIXTH AND HOADLY STS., OPP. CIN., H. & D. R. R. DEPOT,

CINCINNATI.

Office of

WOODROUGH & McPARLIN,

OHIO SAW WORKS,

Cincinnati, O.

DISCOUNT SHEET.

AUGUST 20, 1874.

PAGES.		DISCOUNT.
5.....	Circular Saws, to 22 inches, inclusive.....	25 %
5.....	“ “ 24 in. to 46 in. “	30 %
5.....	“ “ 48 in. and upward	35 %
5.....	Top Circular Saws.....	20 %
6.....	Edger, Shingle and Inserted Teeth Circular Saws...20 %	
6.....	Inserted Teeth Duplicates, and Repairs	10 %
6.....	Veneering Saws.....	Net.
8 and 9.....	Mill, Mulay, Gang and Drag Saws.....	25 %
9.....	Pit and Ice Saws, Cane Knives, and } One-man Cross-cut Saws, }	20 %
10, 11 and 12.....	On all Cross-cut Saws.....	25 %
12.....	Billet and Framed Wood Saws	10 %
13.....	Hand and Panel Saws.....	20 %
13.....	Back Saws.....	10 %
14.....	On all Goods.....	10 %
15.....	Trowels, Band and Compass Saws.....	10 %
15 and 16.....	Power, Turning, Felloe and Scroll Saws.....	15 %
16.....	On all other Goods... ..	10 %
17.....	Mandrels and Files.....	5 %
17.....	Patent Cross-cut Handles.....	25 %
18 and 19.....	Upsets, Saw Sets, and Dole's Gummers.....	10 %
19 and 20.....	On Stone's Gummers and Cutters.....	25 %
21.....	Mixer's Gummers.....	20 %
21.....	Extra Cutters for Mixer's Gummers	10 %
22.....	On Repairing.....	15 %
22.....	Saw Tables and Mandrels.....	10 %

TERMS, 30 DAYS.

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CIRCULAR, MILL, MULAY, AND CROSS-CUT SAWS,

HAND AND BACK SAWS,

Billet, Cooper, and Power Webs, Etc.

FACTORIES AND WAREHOUSE,

Corner Sixth and Hoadly Streets, Opposite Cin., H. & D. Railroad Depot,

CINCINNATI.

Please examine List carefully before ordering, as various alterations and additions have been made.

Goods shipped at purchaser's risk unless otherwise directed, and invoiced at current rates when shipped.

Packages charged for, and goods delivered free of drayage to places only within this city.

Ohio Saw Works,

Cincinnati, August, 1874.

Gentlemen:

We have the pleasure to hand you our ILLUSTRATED List of Prices of Cast Steel PATENT GROUND SAWS, etc., and directions for operating Circular Saws, to which we also ask your particular attention.

We have largely increased our facilities for manufacturing, by the erection of new and commodious buildings, new machinery, and tools, which, with our PRACTICAL knowledge of the business, we can offer you especial inducements for any Goods in our line that you may need.

Our Saws are sold by the principal Hardware Merchants; but if any sizes or descriptions in the Catalogue can not be found at hand, an order sent by mail to us, inclosing the amount, with directions for forwarding, will receive prompt attention.

Respectfully yours,

WOODROUGH & McPARLIN.

We respectfully call the attention of Merchants and Manufacturers of Lumber to our increased facilities in the manufacture of all descriptions of Saws.

Our Saws are made from "*Extra Quality Cast Steel*," are carefully hardened and tempered, and are ground on a Patent Grinding Machine, so that they are perfectly balanced, possessing entire truth, and uniformity of surface.

The impossibility of grinding any Saw by the old method, without leaving it uneven, has always been acknowledged by practical Saw-makers; but with this machine we can grind Circular Saws of any size from six inches to seventy-two inches in diameter with the greatest accuracy and precision, perfectly even in thickness, or gradually increasing the thickness from the cutting edge to the center or mandrel hole.


Want of uniformity in thickness causes the Saw to expand unequally as soon as it becomes slightly heated, and the Saw losing its stiffness will not cut in a direct line; but when we grind on this machine, the Saw being without thick and thin places, expands equally, remains stiff and true, will saw smooth, cut with less set and less power, will save lumber, and, with ordinary care, can not become untrue.


TERMS OF WARRANTY ON SAWS.

Each Saw is warranted free from flaws and seams and practically true.

If found defective in either of these particulars, it may be returned at shipper's expense, and if, on examination by us, we are satisfied the Saw is at fault, it will be properly repaired, or a new Saw given in exchange and returned.

A Saw will not be exchanged for a new one after it has been gummed.

 **CAUTION.**—The use of a cold chisel in retoothing or altering "*Extra Cast Steel Tempered Saws*" will almost invariably crack the Saw. Saws breaking from such usage must not be considered as covered by our warranty.

 **Remember,** "*That a true Mandrel will help a bad Saw, but a bad Mandrel will spoil a good Saw.*"

Any alteration in the holes of Circular Saws by filing, reaming or otherwise, will generally spring the Saw. When such alteration is made the Saw will not be subject to above warranty.

WARRANTED EXTRA CAST STEEL CIRCULAR SAWS.**EXTRA TEMPERED—PATENT GROUND.**

Diameter.	Thickness.	Size of Hole.	Price each.	Each additional Gauge.	Extra for each addit'l Gauge.
4 inches.....	19 gauge.....	$\frac{3}{4}$ inch.....	85.....	6 extra.	Tapered.
5 ".....	19 ".....	$\frac{3}{4}$ ".....	1 00.....	7 ".....
6 ".....	18 ".....	$\frac{3}{4}$ ".....	1 25.....	9 ".....
7 ".....	18 ".....	$\frac{3}{4}$ ".....	1 50.....	10 ".....
8 ".....	18 ".....	$\frac{7}{8}$ ".....	1 75.....	11 ".....
9 ".....	17 ".....	$\frac{7}{8}$ ".....	2 25.....	14 ".....
10 ".....	16 ".....	1 ".....	2 75.....	16 ".....
12 ".....	15 ".....	1 ".....	3 50.....	20 ".....	50
14 ".....	14 ".....	1 $\frac{1}{8}$ ".....	4 00.....	24 ".....	60
16 ".....	14 ".....	1 $\frac{1}{8}$ ".....	4 75.....	28 ".....	70
18 ".....	13 ".....	1 $\frac{1}{4}$ ".....	5 50.....	34 ".....	80
20 ".....	13 ".....	1 $\frac{5}{16}$ ".....	7 00.....	40 ".....	90
22 ".....	12 ".....	1 $\frac{5}{16}$ ".....	8 00.....	48 ".....	1 00
24 ".....	11 ".....	1 $\frac{3}{8}$ ".....	10 00.....	55 ".....	1 20
26 ".....	11 ".....	1 $\frac{3}{8}$ ".....	12 00.....	65 ".....	1 40
28 ".....	10 ".....	1 $\frac{1}{2}$ ".....	14 00.....	80 ".....	1 60
30 ".....	10 ".....	1 $\frac{1}{2}$ ".....	16 00.....	90 ".....	1 80
32 ".....	10 ".....	1 $\frac{5}{8}$ ".....	18 50.....	1 00 ".....	2 00
34 ".....	9 ".....	1 $\frac{5}{8}$ ".....	21 00.....	1 20 ".....	2 20
36 ".....	9 ".....	1 $\frac{3}{4}$ ".....	24 00.....	1 40 ".....	2 40
38 ".....	8 ".....	1 $\frac{5}{8}$ ".....	28 00.....	1 75 ".....	2 60
40 ".....	8 ".....	2 ".....	33 00.....	2 00 ".....	3 00
42 ".....	8 ".....	2 ".....	40 00.....	2 50 ".....	3 50
44 ".....	7 ".....	2 ".....	48 00.....	3 00 ".....	3 70
46 ".....	6 ".....	2 ".....	56 00.....	3 50 ".....	3 80
48 ".....	6 ".....	2 ".....	65 00.....	4 25 ".....	4 00
50 ".....	6 ".....	2 ".....	75 00.....	5 00 ".....	4 20
52 ".....	5 ".....	2 ".....	90 00.....	5 75 ".....	4 30
54 ".....	5 ".....	2 ".....	105 00.....	7 00 ".....	4 50
56 ".....	5 ".....	2 ".....	125 00.....	8 75 ".....	4 70
58 ".....	5 ".....	2 ".....	150 00.....	10 00 ".....	4 80
60 ".....	5 ".....	2 ".....	175 00.....	12 00 ".....	5 00
62 ".....	4 ".....	2 ".....	200 00.....	14 00 ".....	5 20
64 ".....	4 ".....	2 ".....	230 00.....	16 00 ".....	5 40
66 ".....	4 ".....	2 ".....	265 00.....	18 00 ".....	5 50
68 ".....	4 ".....	2 ".....	300 00.....	20 00 ".....	5 70
70 ".....	3 ".....	2 ".....	340 00.....	22 00 ".....	5 90
72 ".....	3 ".....	2 ".....	380 00.....	24 00 ".....	6 00

Circular Saws to cut Metal or Ivory, double price.

Concave Circular Saws, 50 per cent. advance on regular List.

Warranted Extra Cast Steel Circular Top Saws for Double Mills.**EXTRA TEMPERED—PATENT GROUND.**

24	26	28	30	32	34	36 inches.
\$13 00	\$15 00	\$18 00	\$21 00	\$24 00	\$27 00	\$31 00 each.

WARRANTED EXTRA CAST STEEL EDGER SAWS.

EXTRA TEMPERED—PATENT GROUND.

	16 inch.	18 inch.	20 inch.	22 inch.	24 inch.
No. 10 Gauge.....	\$5 85	\$6 50	\$8 20	\$9 00	\$10 50
" 9 "	6 15	6 85	8 60	9 50	11 00
" 8 "	6 40	7 20	9 00	10 00	11 50

WARRANTED EXTRA CAST STEEL SHINGLE SAWS.

TAPERED TO No. 14 GAUGE—PATENT GROUND.

32	34	36	38	40	42	44	46	48 inches.
\$26	\$31	\$36	\$43	\$50	\$60	\$72	\$85	\$100 each.

PATENT INSERTED TEETH CIRCULAR SAWS.

Diameter.	Gauge.		Price.
48 inch.....	6	To 20 Teeth.....	\$115 00
50 "	6	" 20 "	125 00
52 "	5	" 20 "	140 00
54 "	5	" 24 "	165 00
56 "	5	" 24 "	185 00
58 "	5	" 24 "	210 00
60 "	5	" 24 "	235 00
62 "	4	" 24 "	260 00
64 "	4	" 24 "	290 00
66 "	4	" 24 "	325 00
68 "	4	" 24 "	360 00
70 "	3	" 24 "	400 00
72 "	3	" 24 "	440 00

For Saws with greater number of Teeth than named above, add \$2 50 per tooth.

Extra or duplicate teeth, \$1 25 each.

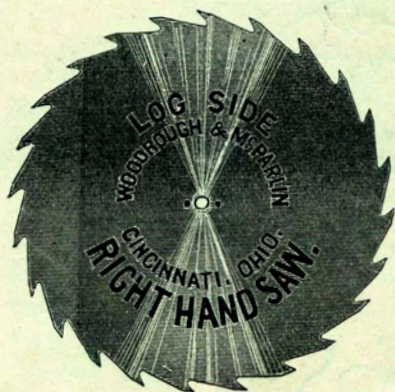
Inserting Patent Teeth in old Saws—

To 60 inches diameter.....	\$3 50 each Tooth.
Over 60 inches diameter.....	4 00 " "

Warranted Extra Cast Steel Veneering Saws, in Segments.

12 inches wide, No. 5 Gauge, per foot in diameter.....	\$14 00
12 " " " 7 " " "	13 00

CIRCULAR SAWS.



When ordering CIRCULAR SAWS, the following directions should be explicitly given:

- Diameter of saw, in inches.
- Thickness or gauge of saw at rim.
- Thickness or gauge of saw at center.
- Right or left-hand saw. (See engravings above.)
- Number of teeth in saw.
- Size of mandrel hole.
- Size of pin holes.
- Distance between pin holes from center to center.
- Greatest feed at each revolution of saw, in inches.
- Kind of lumber to be sawed.
- Number of revolutions of saw per minute.

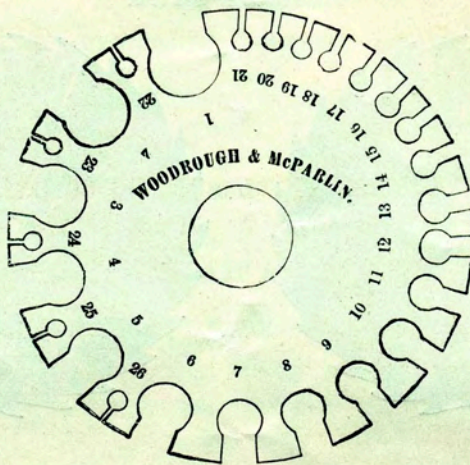
If a Shingle Saw is required, give the number of teeth, and gauge at rim or teeth, size of mandrel hole, and an exact draft of the size of rivet holes for attaching flange. State which side the log or bolt is on, or whether it is a right or left-hand saw.

N. B.—All our stock saws above forty inches in diameter have a two-inch mandrel hole and five-eighths lug-pin holes, three inches from center to center. If wanted different, please send full pattern of holes.

We make a specialty of the manufacture of

THIN CIRCULAR SAWS, in all sizes to 72 inches diameter.

STANDARD GAUGE.



PLEASE ORDER BY THIS GAUGE.

Gauge No. 4.....	$\frac{1}{4}$ inch	scant.	Gauge No. 9	$\frac{5}{32}$ inch	scant.
" " 5.....	$\frac{7}{32}$	"	" " 10	$\frac{1}{8}$	" full.
" " 6.....	$\frac{3}{16}$	" full.	" " 11.....	$\frac{1}{8}$	" scant.
" " 7.....	$\frac{3}{16}$	" scant.	" " 12	$\frac{3}{32}$	" full.
" " 8.....	$\frac{5}{32}$	"	" " 16	$\frac{1}{16}$	"

WARRANTED CAST STEEL MILL SAWS, No. 1.

EXTRA TEMPERED—PATENT GROUND.

Price per foot.

No. 5 Gauge.....	\$1 60
" 6 "	1 50
" 7 "	1 40
" 8 "	1 30
" 9 "	1 20

CAST STEEL MILL SAWS, No. 2.

Price, per foot.....10 cents less than No. 1.

WARRANTED CAST STEEL MULAY MILL SAWS, No. 1.

EXTRA TEMPERED—PATENT GROUND.

	4	5	6	7 gauge.
10 inches wide.....	\$2 50	\$2 30	\$2 10	\$1 90 per foot.
11 " "	2 70	2 50	2 30	2 10 "
12 " "	2 85	2 70	2 50	2 30 "

CAST STEEL MULAY MILL SAWS, No. 2.

Price, per foot.....15 cents less than No. 1.

WARRANTED CAST STEEL GANG SAWS.

EXTRA TEMPERED—PATENT GROUND.

	Price per foot.
Nos. 11, 12, 13, 14 Gauge, 8 inches wide.....	\$1 10
" 10, 15, 16 " 8 " "	1 20
Each additional inch in width.....	15 cents per foot.

WARRANTED CAST STEEL BUTTING OR DRAG SAWS.

No. 10 GAUGE—TAPERED—PLAIN.

Mill Saw Tooth (to cut one way).....	\$1 20
Cross-cut " (to cut both ways).....	1 20
Single Hook "	1 25
Double " "	1 35
Telegraph "	1 35

Any shaped Tooth made to order.

Equal width Drag Saws, 10 cents per foot extra.

Each thickness over No. 10 Gauge, 10 cents per foot extra.

If set and sharpened, extra price.

All above seven feet, " "

WARRANTED CAST STEEL PIT SAWS.

EXTRA TEMPERED.

Length.....	5½	6	6½	7	7½	8 feet.
Price.....	\$7 00	8 00	9 00	10 00	11 00	13 00 each.

POND ICE SAWS.

With Tiller and Handle, complete.....\$7 50 each.

HAND ICE SAWS.

For Wagon use, set and sharpened.....\$2 50 each.

WARRANTED CAST STEEL CANE KNIVES.



Price per dozen.....\$6 00

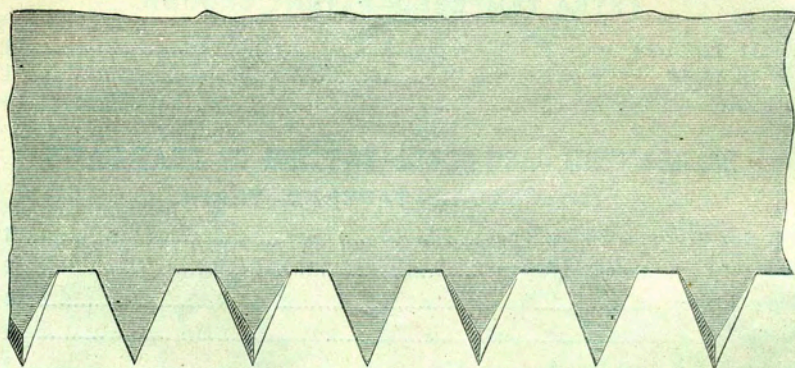
ONE-MAN CROSS-CUT SAWS.



Improved Pattern Tooth.

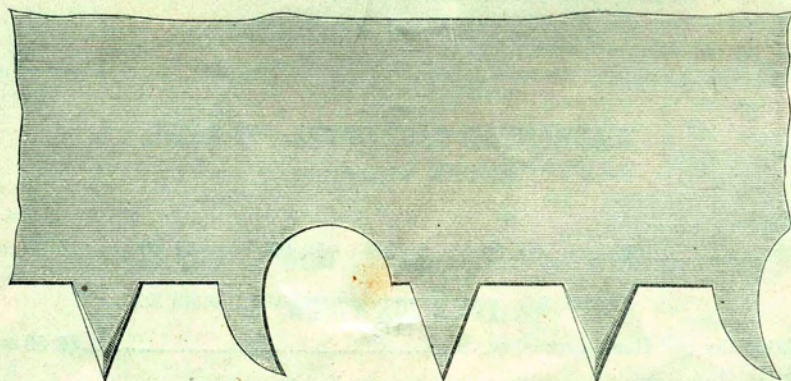
Any Tooth required made to order, set and sharpened. Price each, \$3.00.

**WARRANTED EXTRA CAST STEEL CROSS-CUT SAWS, No. 1,
ALL SET AND SHARPENED.**



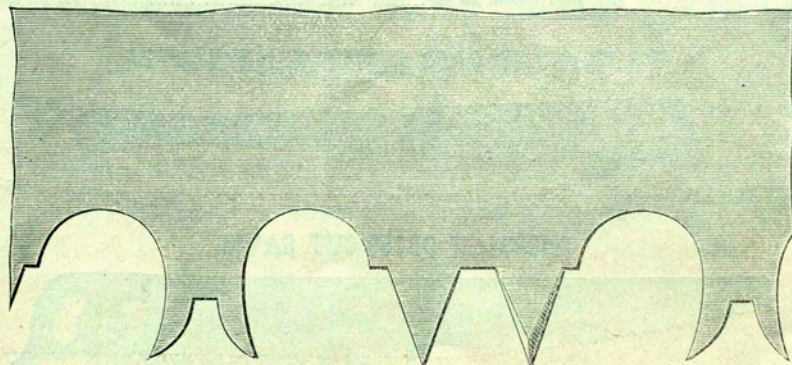
COMMON TOOTH.

Woodrough & McParlin's. Cast Steel. Warranted. Extra temper. This Saw is fully equal to any in the market. Price per foot, 60 cents.



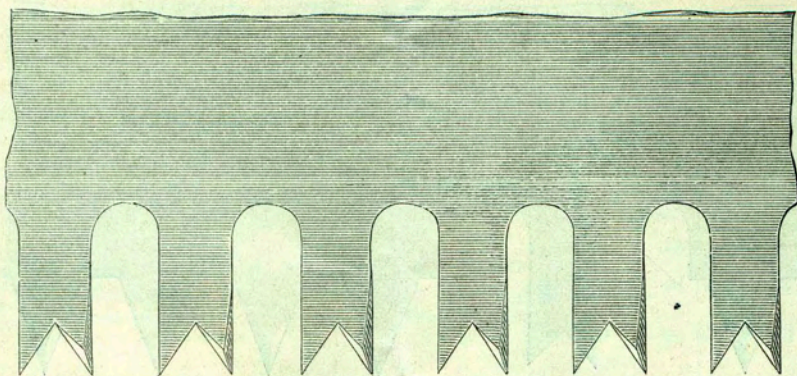
SINGLE HOOK TOOTH.

Woodrough & McParlin's Extra quality Single Hook Cross-cut Saw. Price per foot, 65 cents.



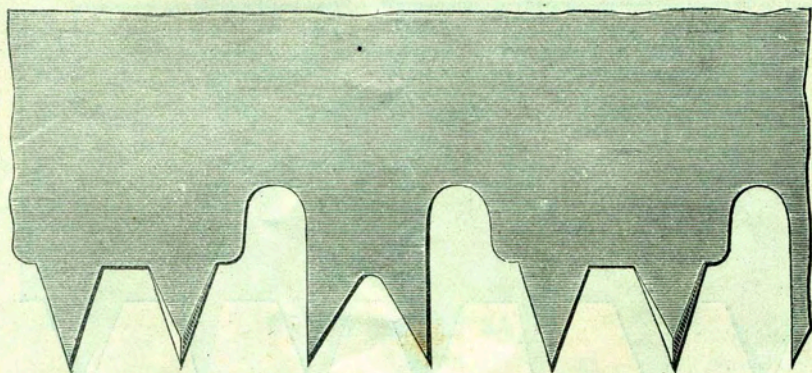
DOUBLE HOOK TOOTH.

Woodrough & McParlin's Extra quality Double Hook Cross-cut Saw. This Saw is well known to the trade and consumers. Price per foot, 70 cents.



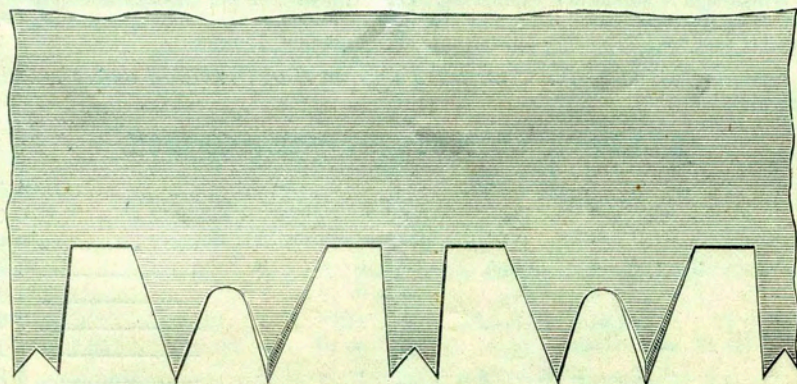
TELEGRAPH TOOTH.

Woodrough & McParlin's Extra quality FAST-CUTTING Telegraph Cross-cut Saw. This Saw has earned for itself a name, and is universally popular. Price per foot, 70 cents.



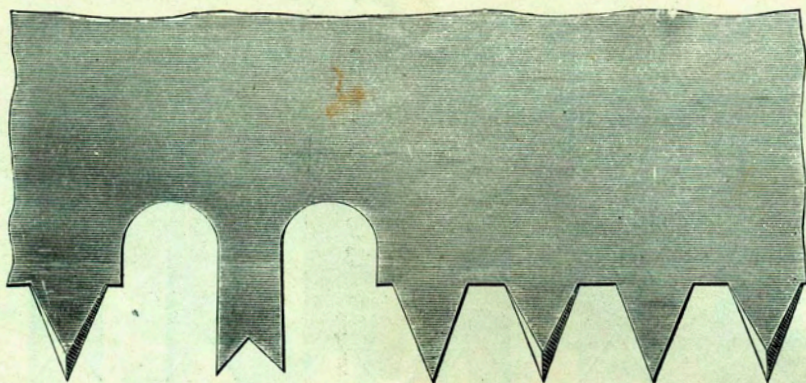
ELECTRIC TOOTH.

Woodrough & McParlin's Extra quality Electric Cross-cut Saw. This Saw has a large sale, and stands without a rival. Price per foot, 70 cents.

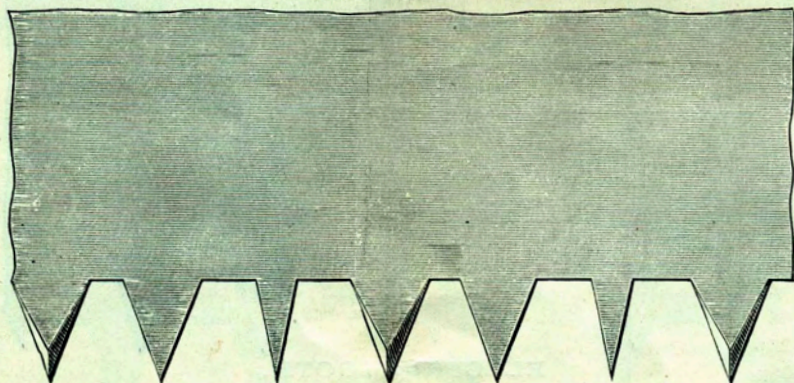


CHAMPION TOOTH.

Woodrough & McParlin's Champion Cross-cut. Extra quality. We fully believe this Saw to be, in the ease and rapidity with which it does its work, what its name implies—the "Champion." Price per foot, 70 cents.

**GARVER TOOTH.**

Woodrough & McParlin's "Garver Tooth" Cross-cut Saw. Extra quality. This Saw has held its place in the market for the past fifteen years, and, for simplicity of its arrangement to keep in order, we heartily recommend it. Price per foot, 70 cents.

**FEATHER-EDGE CROSS-CUT.**

Woodrough & McParlin's Feather-edge Cross-cut Saw. Extra quality. Ground **extra thin**, from tooth to back. This Saw has had an immense run in certain sections, and wherever sold has given entire satisfaction. Price per foot, 70 cents.

SPECIAL NOTICE.—*No Cross-cut Tangs or Ears furnished unless ordered with the Saws.*

BILLET OR WOODCUTTERS' WEBS, 30 INCH.

W. & McP., No. 2 Cast Steel, usual tooth, set and sharpened,	\$4 50
" " " Peg " " " "	4 75
" " " Telegraph tooth, set and sharpened,	5 00
" No. 1, " usual " " " "	6 00
" " " Peg " " " "	6 25
" " Ex. S. S., Etched, usual " " " "	7 00
" " " Peg " " " "	7 25
" " Coopers' Webs, fine " " " "	6 25
No. 2, Blades framed complete,	\$3 00 per doz. extra.
" 1 and No. 1 extra, Blades framed complete,	3 50 " " "

All framed Wood Saws put up in one-half dozen packages.

HAND, PANEL, AND RIPPING SAWS.

	26 in.	28 in.	30 in.
No. 7, Woodrough & McParlin, Cast Steel, Beech Handle, polished edges, 4 rivets,.....	\$20 00	24 00	27 00
No. 8, Woodrough & McParlin, Spring Steel, Apple Handle, polished edges, 4 rivets,.....	22 50	26 00	30 00

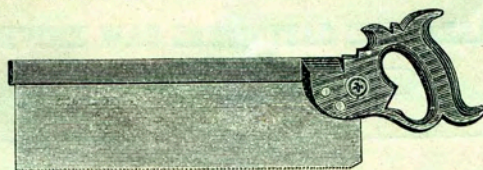
We call attention to the Warranty attached to all Hand Saws bearing our name:

THIS SAW IS FULLY WARRANTED by the Makers, and if defective in any respect, may be returned to them and exchanged at their expense. **WOODROUGH & MCPARLIN, Cin'ti**

	Per doz.
No. 0, "Farmer," 26 in., Cast Steel, Beech Handle, 3 rivets,.....	\$9 00
" 1, "Buckeye," 26 in., " " " polished edges, 4 rivets,.....	12 00
" 3, "Hamilton," 26 in., " " " " " 4 "	14 00
" 5, "John Hancock," 26 in., Cast Steel, Walnut Handle, 5 iron screws,.....	15 00

GENTS' PANEL SAWS.

	16	18	20	22	24 inch.
No. 3.....	\$8 00	9 00	10 00	12 00	13 00 per doz.
" 7.....	11 50	12 50	14 00	16 00	18 00 "
" 8.....	13 00	14 50	16 00	18 50	20 00 "

WARRANTED CAST STEEL BACK SAWS.

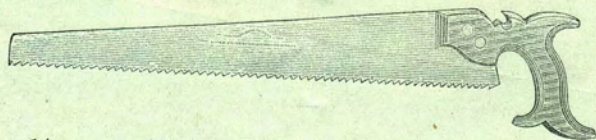
No. 7, Woodrough & McParlin's, Cast Steel, Beech Handle, Polished Edges, Blued Steel Backs.

8	10	12	14	16	18 inches.
\$13 00	13 00	16 00	19 00	22 00	25 00

No. 8, Woodrough & McParlin's, Spring Steel, Apple Handle, Polished Edges, Blued Steel Backs.

8	10	12	14	16	18 inches.
\$14 50	14 50	18 00	21 00	24 50	28 00

WARRANTED CAST STEEL PRUNING SAWS.

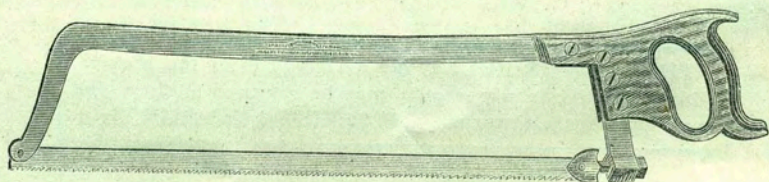


Length.....	14	16	18	20	22	24 inches.
Price.....	\$9 00	10 00	11 00	12 50	14 50	15 50 per doz.

POLE PRUNING SAW AND CHISEL.

Price per dozen.....\$10 00

WARRANTED CAST STEEL BUTCHERS' BOW SAWS.



No. 1, Oval Backs.....	18			20		22		24 inches.
	\$16 50			18 00		20 00		22 00 per doz.
No. 2, Flat Backs....	13	14	16	18	20	22		24 inches.
	\$13 00	14 00	15 00	16 00	17 00	18 00		19 00 per doz.
No. 3, Spring Backs..	12	13	14	15	16	18		20 inches.
	\$9 50	10 00	10 50	11 00	12 00	13 00		14 00 per doz.

WARRANTED CAST STEEL KITCHEN SAWS.



12 inch.....\$5 75 per doz.

WARRANTED CAST STEEL SAW KNIVES.



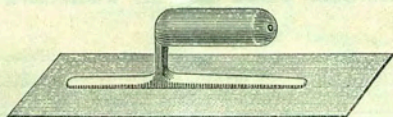
Price per dozen\$5 00

WARRANTED CAST STEEL COMPASS SAWS.

BEVELED BACKS.



Length.....	8	10	12	14	16	18 inches.
Price.....	\$4 00	4 25	4 50	4 75	5 00	5 25 per doz.

WARRANTED CAST STEEL PLASTERING TROWELS.

Length.	Per doz.	Length.	Per doz.
10 inch.....	\$11 00	12 inch.....	\$13 00
10½ ".....	11 50	12½ ".....	14 00
11 ".....	12 00	13 ".....	15 00
11½ ".....	12 50	13½ ".....	16 00

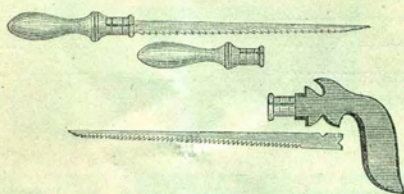
Extra quality, Etched Blades, Walnut Handles, advance \$1 50 on List.

WARRANTED CAST STEEL BAND OR BELT SAWS.

ALL LENGTHS TO 21 FEET.

Width.	Each.	Width.	Each.
¼ inch.....	\$2 25	1½ inch.....	\$5 75
⅜ ".....	2 75	1¾ ".....	6 25
½ ".....	3 25	1⅞ ".....	6 75
⅝ ".....	3 75	1½ ".....	7 50
¾ ".....	4 25	1¾ ".....	8 50
⅞ ".....	4 75	2 ".....	11 50
1 ".....	5 25	2½ ".....	14 50

MITCHELL'S PATENT, OCT. 24, 1865.



	Per doz.
Pad Handles, with one Blade,.....	\$6 00
Extra Blades to fit ditto,.....	1 50
Pistol Handles, with one Blade,.....	7 50
Extra Blades to fit ditto,.....	2 00

WARRANTED CAST STEEL POWER SAWS.

TO THREE-QUARTERS OF AN INCH WIDE.

	Per doz.		Per doz.
12 inch.....	\$3 00	26 inch.....	\$5 00
14 ".....	3 25	28 ".....	5 50
16 ".....	3 50	30 ".....	6 00
18 ".....	3 75	32 ".....	6 50
20 ".....	4 00	34 ".....	7 00
22 ".....	4 25	36 ".....	7 50
24 ".....	4 50	38 ".....	8 00

Over ¾ inch wide, extra price.

We make above Webs from 13 to 16 gauge in thickness.

WARRANTED CAST STEEL TURNING WEBS.

	Per doz.		Per doz.
14 inch.....	\$1 75	26 inch.....	\$3 25
16 ".....	2 00	28 ".....	3 50
18 ".....	2 25	30 ".....	3 75
20 ".....	2 50	32 ".....	4 00
22 ".....	2 75	34 ".....	4 25
24 ".....	3 00	36 ".....	4 50

We make above Webs from 19 to 22 gauge in thickness.

WARRANTED CAST STEEL FELLOE WEBS.

	Per doz.		Per doz.
24 inch.....	\$4 00	32 inch.....	\$5 25
26 ".....	4 25	34 ".....	5 75
28 ".....	4 50	36 ".....	6 25
30 ".....	4 75	38 ".....	6 75

We make the above Webs from 17 to 19 gauge in thickness.

SCROLL SAWS FOR FAY'S PATENT MACHINE.

	Per doz.		Per doz.
8 inch.....	\$3 25	14 inch.....	\$4 75
9 ".....	3 50	16 ".....	5 25
10 ".....	3 75	18 ".....	5 75
11 ".....	4 00	20 ".....	6 25
12 ".....	4 25	22 ".....	6 75
13 ".....	4 50	24 ".....	7 25

Over $\frac{3}{4}$ inch wide, extra price.

We make the above Webs from 13 to 16 gauge in thickness.

BUTCHERS' BOW SAW BLADES.

Length.....	12	14	16	18	20	22	24	26 inches.
	\$3 25	3 50	4 00	4 50	5 00	5 50	6 00	6 50

CAST STEEL HACK SAW BLADES.

Inch.....	8	9	10	11	12	13	14	
	\$3 25	3 50	3 75	4 00	4 50	5 00	5 50	per doz.
Cast Steel Key-hole or Fret Saws.....								per doz., \$1 50
" Compass Saw Blades.....								" 2 00
Cabinet Scrapers.....								" 1 25
Wall " 6 inches long, 5 inches wide.....								" 2 50
Currier Blades, black.....								" 1 50
" " polished.....								" 2 00
Mitre " beveled edge.....								per foot, 75
Hand Saw Handles, No. 7.....								per doz., 2 25
Saw Frames and Rods.....								" 3 50
Usual Saw Rods.....								" 1 00

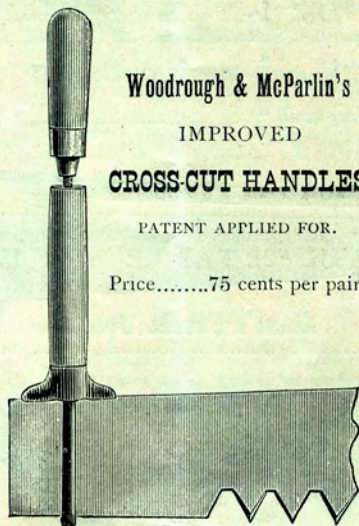
CIRCULAR SAW MANDRELS,

(COMBINED BOXES.)

No.	Diam. of Pulley.	Face of Pulley.	Diam. of Flange.	Length of Shaft.	Diam. of Shaft.	Price.
No. 1.....	2 $\frac{3}{4}$ inches,	3 inches,	3 inches,	13 inches,	1 inch,	\$7 00
" 2.....	3 " "	4 " "	3 $\frac{1}{2}$ " "	14 " "	1 " "	8 00
" 3.....	3 $\frac{1}{2}$ " "	4 " "	4 " "	16 " "	1 $\frac{1}{8}$ inches,	8 50
" 4.....	4 " "	4 $\frac{1}{2}$ " "	4 $\frac{1}{2}$ " "	20 " "	1 $\frac{1}{4}$ " "	9 75
" 5.....	4 $\frac{1}{2}$ " "	5 " "	4 $\frac{3}{4}$ " "	22 " "	1 $\frac{1}{2}$ " "	11 00

Larger or smaller sizes made to order.

When ordering Saw Mandrels, send sketch, and give distance from saw to end of mandrel if the pulley is between the bearings. If the pulley is on the end of mandrel, give distance from saw to inside edge of pulley.

**Woodrough & McParlin's**

IMPROVED

CROSS-CUT HANDLES

PATENT APPLIED FOR.

Price.....75 cents per pair.

W. & S. BUTCHERS' IMPERIAL CAST STEEL FILES.

(SHEFFIELD, ENGLAND.)

Mill Saw Files, Bastard Cut.

	Per doz.		Per doz.
8 inch	\$3 94	13 inch	\$9 38
9 "	4 50	14 "	11 25
10 "	5 63	15 "	13 50
11 "	6 75	16 "	16 13
12 "	8 07	17 "	18 75

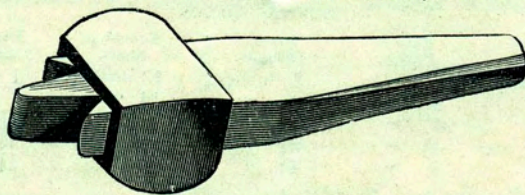
Mill Saw Files, Fine Second Cut.

	Per doz.		Per doz.
8 inch	\$4 50	13 inch	\$10 13
9 "	5 07	14 "	12 38
10 "	6 38	15 "	14 63
11 "	7 50	16 "	17 63
12 "	9 00	17 "	20 63

Half Round Smooth.

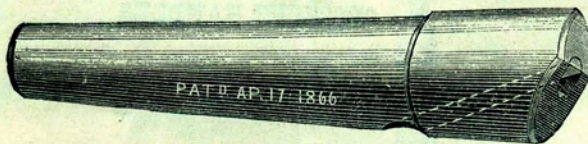
	Per doz.		Per doz.
8 inch	\$5 07	10 inch	\$7 13
9 "	5 82	12 "	9 94

UPSET PUNCHES, SAW SETS, Etc.



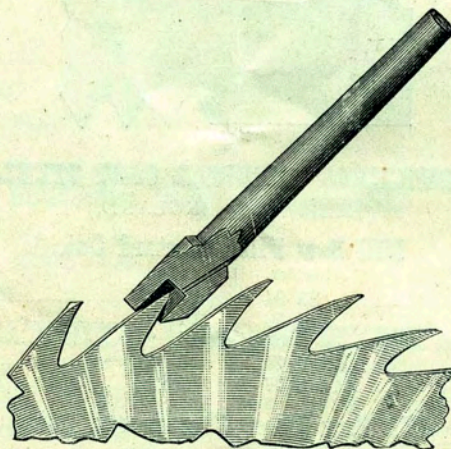
Mixer Double Upset.

No. 3 Double Upsets, for large Saws,	Each.
" 2 " " " " " "	\$6 50
" 1 " " " " " "	6 00
" 2 Single " " " " " "	5 50
" 1 " " " " " "	5 00
" 0 " " " " " "	4 50
" 0 " " " " " "	3 50



Stone's Patent Upsets.

Price, with extra Die.....\$5 00

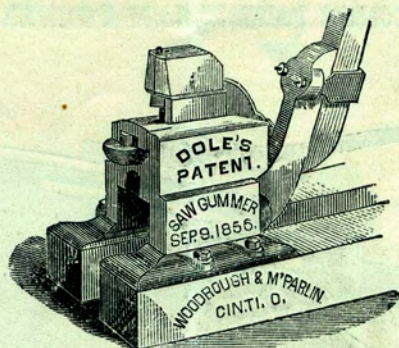


Stone's Patent Upset,

FOR SHINGLE SAWS, AND ALL KINDS OF SMALL SAWS.

Price each.....\$3 50.

Old Style Upsets.....	each, \$2 00
Brooks' Patent Saw Set, Large.....	" 3 00
" " " Small.....	" 2 00
Foster's " " for Cross-cut Saws.....	" 1 25
Old Style " " Mill Saws.....	" 2 00



Dole's Patent Saw Gummer.

No.....	1.....	2.....	3.....
Price.....	\$30.....	25.....	20.....
Weight.....	92 lbs.....	70 lbs.....	22 lbs.....

Extra Dies, or parts of above, kept in stock.

Dole's Patent Emery Wheel Saw Gummer.

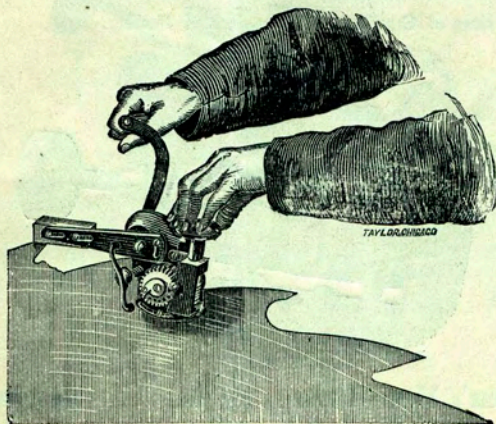
	Price.
20 inch diameter, $\frac{3}{4}$ inch thick, weighs 35 lbs.....	\$30 00
20 " " 1 " " " 45 ".....	35 00
20 " " 1 $\frac{1}{4}$ " " " 50 ".....	40 00

The operation of Gumming large Circular Saws with above Gummer is simply grinding out the scores between the teeth with a solid Emery or Vulcanite Wheel, which is made the proper shape on its edge to produce the desired shaped tooth. The wheel has fitted in it a metallic flange, same size as the holes in large Circular Saws, and held and run by the same devices as hold and run the Saw.

Full directions with each Gummer.

Borthwick's Emery Gummers for shop use, complete, \$20 00.

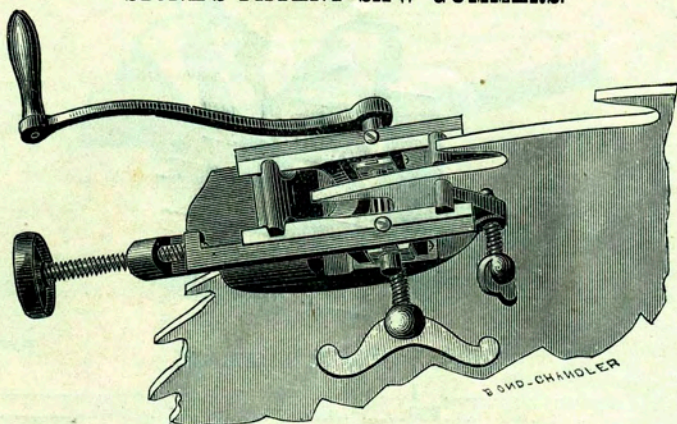
Duplicate Wheels for ditto, $\frac{3}{8}$ inch \$5 50, $\frac{1}{2}$ inch \$6 50.



Stone's Eclipse Gummer.

Eclipse Gummer, complete, with Cutter Grinder and three $\frac{5}{8}$ inch Cutters (the only size used with the Eclipse Gummer).....	\$25 00
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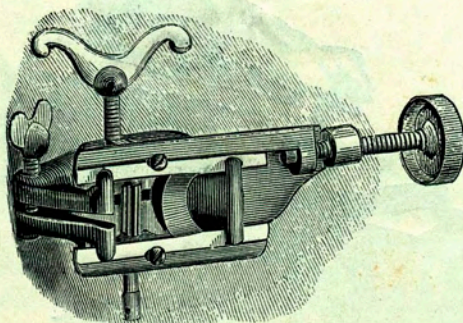
STONE'S PATENT SAW GUMMERS.



PRICES:

Gummer, complete, with Cutter Grinder and two $\frac{3}{4}$ inch Cutters.....	\$20 00
" " " " " " three $\frac{5}{8}$ " "	20 00
" " " " " " four $\frac{1}{2}$ or $\frac{3}{8}$ inch Cutters.....	20 00
" " " " " " four $\frac{7}{8}$ inch Cutters.....	25 00
" " " " " " three 1 " "	25 00
Extra $\frac{1}{2}$ or $\frac{3}{8}$ inch Cutters.....	each, 75
" $\frac{5}{8}$ " " "	" 1 00
" $\frac{3}{4}$ " " "	" 1 50
" $\frac{7}{8}$ " " "	" 2 00
" 1 " " "	" 2 50
" Cranks.....	" 25
" sets of Boxes.....	" 25
Cutter Grinder.....	" 1 00
Carriages.....	" 1 00

We make two sizes of Cranks and three sizes of Boxing.

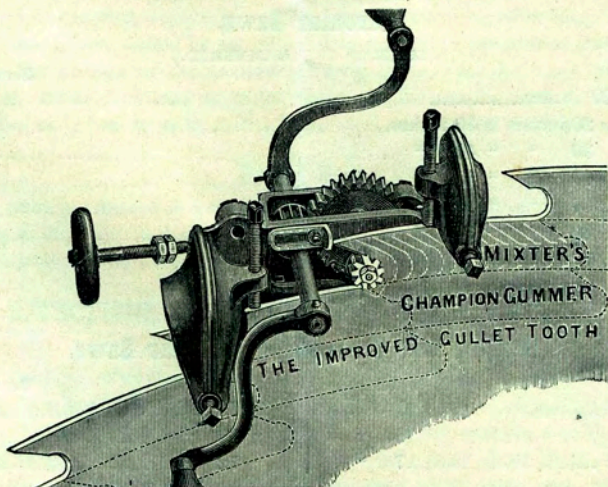


Stone's New Gummer, for Small Circular Saws.

This Gummer weighs four pounds, and will use $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ inch Cutters, and made expressly for use on small and medium Circular Saws.

Price, complete, with Cutter Grinder and 3 extra Bits.....	\$12 00
Extra Bits, each, $\frac{1}{4}$, $\frac{3}{8}$, and $\frac{1}{2}$ inch.....	75

MIXTER'S GUMMERS, Etc.



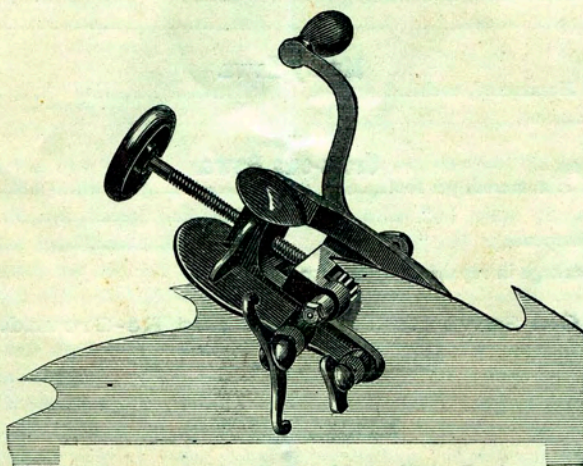
Champion Gummer, Double Gear,

FOR LARGE CIRCULAR SAWS.

Cutters from 1 to 1½ inches diameter. Adjustable Carriage-way down.

Price.....\$30 00.

Champion Gummer. Double Crank. Single Gear. Price.....\$25 00



New England Gummer,

With 3 Cutters, Grinder and Wrench. For small Circulars and Long Saws. Size of Cutters, ½ to ¾ inch.

Price.....\$20 00.

Extra Cutters for Mixer Gummers.

1½	1¼	1½	1	¾	⅝	⅜	½	⅜ inch.
Price.....\$1 25	1 00	90	80	70	60	50	50	50 each.

RATES OF REPAIRING SAWS.**Circular Saws,**

(GUMMED AND HAMMERED.)

	Per inch in Diam.
All sizes to 20 inches.....	\$ 8
" over 20 inches to 30 inches.....	10
" " 30 " " 40 "	12
" " 40 " " 50 "	15
" " 50 " " 60 "	22
" " 60 " " 72 "	28

Retooling, 25 per cent. extra.

If Hammered only, two-thirds of above list.

Setting and Sharpening Circular Saws.

	Per inch in Diam.		Per inch in Diam.
To 20 inches.....	5 cents.	To 50 inches.....	8 cents.
" 30 "	6 "	" 60 "	9 "
" 40 "	7 "	" 72 "	10 "

Taper-Ground Shingle Saws.

	Per inch in Diam.
All sizes, Gummed and Hammered.....	25 cents.
All sizes, Hammered	15 "

Mill Saws.

Gummed and Hammered, each.....	\$1 75
Hammering	1 00

Mulay Saws.

Gummed and Hammered, each.....	\$2 00
Hammering.....	1 25

Cross-cut Saws.

Gummed and Hammered, per foot.....	\$ 15
Hammering, "	10
Setting and Sharpening, "	10

N. B.—Breakage in repairing at the owner's risk.

Old Saws Re-Tempered and Re-Ground.**MISCELLANEOUS.**

Circular Saw Tables, for Cord Wood, 24 inch Circular Saw	\$60 00
Mandrels, with Fly Wheel, for ditto, without Saw.....	25 00

MOULDING BITS MADE TO ORDER.**STEEL SPRINGS " " "****GUM AND LEATHER BELTING.****LACE LEATHER FOR BELTS.****GUM AND HEMP PACKING.**

WHEN SENDING SAWS FOR REPAIRS,

Box them up to prevent accident, and observe the following directions: The case or package containing them should be not only plainly marked to our address, but should have upon it also the names of the parties sending them, that the Saws may be readily identified. Particular directions as to the nature of the repairs desired should also accompany them, or be sent to us by mail. Until such are received no repairs will be made.

Burnt Saws.

Saws are often overheated in a conflagration, and water thrown on them, causing cracks or hard spots in the Saw, so that it is impossible to straighten the Saw without breaking. Parties wishing to send burnt Saws to us must **prepay** the freight, and take risk of breakage.

DIRECTIONS FOR OPERATING CIRCULAR SAWS.**LINING THE SAW.**

Run the carriage up so that one of the head-blocks will be opposite the center of the Saw; then hold a small piece of board or stick on the head-block and let the end touch the center of the Saw; keep the board or stick in exactly the same place on the head-block, and run the carriage back so that the head-block will stand about twenty feet from the front of the Saw; then draw a fine line from the point of the stick past the Saw, which should stand from one-eighth to one-quarter of an inch in twenty feet, the front inclining toward the carriage. Some Saws require a trifle more, some less.

TABLE OF SPEED FOR CIRCULAR SAWS.

Revolutions per min.		Revolutions per min.	
36 inches in diameter	1,000	52 inches in diameter	700
38 " " "	950	54 " " "	675
40 " " "	900	56 " " "	650
42 " " "	870	58 " " "	625
44 " " "	840	60 " " "	600
46 " " "	800	62 " " "	575
48 " " "	760	64 " " "	550
50 " " "	725	66 " " "	525

This table is as near right as can be arrived at from our own and the experience of the best sawyers and millwrights, when the mill and gear is firm and in good order. A mill that is old and rickety, and trembles so as to jar and cause the saw to vibrate, should have the speed lessened accordingly. The belts should be neatly laced and kept straight, especially the one that runs over the pulley on the mandrel, carefully avoiding every thing that will cause the saw to vibrate. Also look well to the carriage; see that the track is straight, solid, level and true. Any saw after being used for a long time will grow limber, and should be re-hammered and stiffened; after which, if properly done, it will be as good as new.

By carefully observing these rules respecting the care and attention due a circular saw, there will be labor and money saved. A circular saw is not unlike any other tool which has a great amount of work to do; it has its peculiarities, and wants to be kept in good order to do good work.

CIRCULAR SAWS.

In ordering Circular Saws, be careful to give the size, gauge, number of teeth, right or left hand, size of arbor and pin holes, and the motion; and when ordering small saws, say whether for rip or cross-cut, and send diagram of shape and pitch of tooth, if you have any preference. Before ordering, study well the character of the mill, the power you have, the MOTION you wish to RUN, the amount you wish to cut to a revolution of the saw,

the size and class of the logs to be cut, and the skill of the man who has charge of them. If your mill and machinery is solid, and in perfect running order, and you have a skillful mechanic and good class of logs, you can run a thinner saw than though every thing was the reverse. A thick saw will stand a higher motion than a thin one; but a motion of ten thousand feet per minute on the periphery of the saw is as fast as a saw ever ought to run, and we regard nine thousand feet per minute a better motion. A taper saw will stand a higher motion than an even gauge, for the reason that the rim is lighter, and the expansion from centrifugal force will be less. The number of teeth depends upon the amount you wish to cut at a revolution, providing your power is ample; but if the power is deficient, then adapt the cutting to the power you have to drive the saw.

The presumption is, that, in buying a saw, you adapt it to the size of your logs, and, to get the greatest cutting capacity, put in all the cutting points you can, and at the same time have sufficient throat-room to chamber the saw-dust, and this you can determine by actual calculation. A seventy-two-inch saw, with forty-eight teeth, cutting four inches to a revolution, removes one hundred and twenty-eight square inches on a full cut of thirty-two-inch board. This solid wood cut into saw-dust will require twice the space, or two hundred and fifty-six inches; and each tooth should have five and one-third square inches throat-room to work free and easy and clean freely; with less throat it will clog or force the saw-dust into the space between the saw and the log, and cause it to heat on the rim. For small logs a larger number of teeth is preferable, because the distance each tooth cuts is less, and does not require so much room for dust.

A saw is less likely to heat when it is cutting its full capacity, cleaning freely, than when it is cutting along slowly in the log. A good saw requires no paper packing, and if you can not run it without, the saw is only half made, and the sooner you get a perfect one the better.

TO THE SAWYER we would say "be sure you are right." See that the track is LEVEL and STRAIGHT; that the saw shaft is LEVEL; that the saw hangs PLUMB; that it goes on the mandrel EASY, and is a CLOSE FIT; that the lug pins fit and have a bearing; that the TIGHT collar is a little CONCAVE, and the LOOSE one STRAIGHT; that the saw is perfectly straight on the log side when it is screwed up ready to run; that it is in line with the carriage, or a little inclined toward the log; that the saw is perfectly round; that the throat-room is equal to the amount you wish to cut to each revolution of the saw; that the backs of the teeth are not too high, and that they are filed perfectly square; if you have a swaged tooth, that the teeth are swaged out so as to have a sufficient clearance for the body of the saw; that there is little or no end play to the saw shaft; that the guides are perfectly adjusted; that the journals of the saw shaft are properly packed; that the motion is not too high; "then go ahead," and if it don't go, you may be sure you have failed in one or more of the above points, and you will discover where the trouble lies by giving it careful attention.

If it inclines to run out of the log, give it a little lead in; and if it inclines into the log, lead it out by filing the points of the teeth or adjusting the mandrel. If it runs out and in, or what we call "snaky," LEAD into the log, and file the points of the teeth to lead out. This will force that part of the saw from the mandrel to the cutting point in a direct line, and hold it there. The cause is that the saw is large on the rim, and trying to hold it to line with the guide pins only makes it worse. When you have once adjusted the guide pins, when the saw is cool don't move them, as there is where the saw should run. Reduce the set of the saw, so that the center of the saw will warm a little with the friction. Causing it to expand is better. If the saw heats in the center, give it more set; if it heats on the rim, either the backs of the teeth are too high or you are trying to cut more than the saw will chamber, and forcing the saw-dust between the SAW and the LOG.

If the saw is tight on the rim, increase the motion, if possible, as this expands the saw on the rim, and gives set enough to keep it cool in the center.

If the saw gets dished toward the log, don't try to run it, but send it to us.

OHIO

WOODROUGH
MANUFACTURERS
OF
PATENT GROUND
SAWS
OF ALL KINDS, INCLUDING
HAND, PANEL, BACK SAWS, &c.

McPARRLIN,
CINCINNATI, O.

The image contains two detailed illustrations of hand saws. The top saw is a hand saw with a curved blade and a handle. The bottom saw is a panel saw, which is longer and flatter, also with a handle. Both saws are shown in a perspective view, highlighting their design and the teeth on the blades.

SAW WORKS.